

AMENDED CLAIMS

[received by the International Bureau on 25 January 2000 (25.01.00);
original claims 15 and 16 amended; remaining claims unchanged (2 pages)]

10. A composite material as claimed in claim 9 and comprising less than 0.1% by weight boron expressed as B_2O_3 .

11. A composite material as claimed in any preceding claim in which the alkaline earth silicate fibre is itself capable of use without excessive shrinkage at temperatures in excess of 1200°C.

12. A composite material as claimed in any preceding claim in which the material is obtainable by vacuum forming from a slurry containing the following ingredients (in weight %):-

Alkaline earth metal silicate fibre	70-85%
Colloidal silica (30% SiO_2 by weight)	3-25%
Organic binder	1-6%
Filler	11-20%

13. A composite material as claimed in claim 12 comprising:-

Alkaline earth metal silicate fibre	70-90%
Colloidal silica (30% SiO_2 by weight)	1-10%
Organic binder	1-6%
Filler	11-20%

14. A composite material as claimed in claim 13 comprising:-

Alkaline earth metal silicate fibre	77.3-87.2%
Colloidal silica (30% SiO_2 by weight)	1.2-8.2%
Organic binder	3.3-4.7%
Filler	12.8-18%

15. A composite paper comprising:-

Alkaline earth metal silicate fibre	90-95%
Organic binder	5-10%
Organic flocculants	<1%

16. A composite paper as claimed in claim 15 in which the organic binder is an acrylic latex.

17. A composite material as claimed in any of claims 1 to 11 in which the material is a material obtainable by vacuum forming from a slurry comprising the ingredients:

Alkaline earth silicate fibre	60 parts by weight
Colloidal silica (30%by weight SiO ₂)	12 - 14 parts by weight
Starch	2.5 parts by weight

and in which the colloidal silica has a pH of less than 8.

18. A composite material comprising 4-12% by weight colloidal silica, 3-6.5% starch, balance to 100% alkaline earth silicate fibre.

19. A composite material as claimed in claim 18 and comprising 4-9% by weight colloidal silica, 3.5-5% starch, balance to 100% alkaline earth silicate fibre.

20. A composite material as claimed in claim 18 comprising about 6% colloidal silica.

21. A composite material as claimed in any of claims 1 to 11 in which the material is a material obtainable by vacuum forming from the ingredients:-

"White water"	50-80% by volume of 30% solids colloidal silica
component	with 20-50% by volume mains water
Alkaline earth metal	0.5-4% by weight of solids to white water
silicate fibre	component

and in which the colloidal silica has a pH of less than 8.

Statement under Article 19(1)

Claim 15 has been has been amended and expressed as an independent claim. Conforming amendments to Claim 16 have been made. The amendment is required as an incorrect dependency was given on filing. The papers of Claims 15 and 16 do not include colloidal silica as binder.

Referring to the specification as originally filed the passage bridging pages 8 and 9 is clearly directed to manufacture of papers and indicates that the normal flocculant used is alum whereas the invention of the present application uses acrylic organic binders and organic flocculants.

These amended claims have novelty and inventive step over the cited prior art and have the same technical feature of using bonding agents or fillers comprising low amounts of aluminium. This technical feature gives high temperature performance that is nowhere indicated in the cited prior art.